

CORNING

Everon 6200

A3-E3-N3 Specification Sheet



| Features | |
|---|-------------------------------------|
| 1200MHz Transmission Bandwidth over 1 fiber | 8 x 3GPP Band per Remote |
| Sub 6GHz | Up to 200MHz IBW |
| Dry contact Alarm | 25dBm Maximum Output Power per Band |
| Support Band or Channel Selective filter | Cascading up to 6 levels |

E62-A3 - Access Unit Chassis



The E62-A3 – Access Unit Chassis is a standard 19-inch 2U rack-mounted shelf (1U fan unit included), which serves as the host for Everon™ 6200. The E62-A3 provides coupling access to radio signal sources of multi-operator, multi-system, and multi-band, forming digital optical signals and distributing static capacity distribution to fiber-connected other type devices. One A3 supports up to eight optical interfaces connected to E3s (Expansion Unit) or N3RUs (Remote Unit).

This document describes the installation procedure for the E62-N3 remote unit.

This is NOT a CONSUMER device. It is designed for installation by FCC LICENSEES and QUALIFIED INSTALLERS. You MUST have an FCC LICENSE or express consent of an FCC License to operate this device. NOTE: Only authorized person can enter the area where the antenna is installed. And the person is fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Awareness of the potential for RF exposure in a workplace or similar environment can be provided through specific training as part of a RF safety program.

E62-AU-AC – Active Combiner Module



The E62-AU-AC – Active Combiner Module is the interface to the operator base station signal source equipment. Each module has four QMA ports for signal input from the maximum four operators. One Access Unit can be equipped with up to four modules. In accordance with wireless service provider standards, it is not advised to use digital repeaters as a signal source for Corning solutions.

E62-E3-O - Expansion Unit



The E62-E3-O – Expansion Unit is a standard 19-inch 1U rack-mounted shelf, which serves as the interface between the Primary A3 and the Remote Unit for the capacity expansion of system.

E62-N3RU – Low Power Remote Unit



The E62-N3RU is a low-power remote unit supporting cellular technologies on fiber optic cable using the CPRI protocol. The N3 is ideal for multi-operator multi-band, static capacity distribution deployments of cellular services in small-to-medium coverage areas. The N3 supports up to four 25 dBm RF channels. The N3 converts an optical signal to RF and then transmits at the relevant 3GPP band and receives the analog RF signal, conditions it, and converts it back to optical for routing to the E3 or A3.

The socket-outlet shall be easily accessible.

Please take attention that changes or modification not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

Specifications

E62-A3 - Access Unit Chassis

| Supported Bands | | | | |
|-----------------|--------------|-----------|-------------------|---------|
| Band | 3GPP Band | Downlink | Uplink | Max IBW |
| 600MHz | 71 | 617-652 | 663-698 | 35 |
| 700 LU | 12 & 13 | 729-756 | 699-716 & 777-787 | 27 |
| 700MHz LUPS | 12 & 13 & 14 | 728-768 | 698-716 & 776-798 | 40 |
| 850E MHz | 26 | 859-894 | 814-849 | 35 |
| 1900MHz | 25 | 1930-1995 | 1850-1915 | 65 |
| 2100MHz | 66E | 2110-2200 | 1710-1780 | 90 |
| 2300MHz | 30 | 2350-2360 | 2305-2315 | 10 |
| 2500MHz TDD | 41 | 2496-2690 | 2496-2690 | 194 |
| C-Band-1 | n78 | 3450-3800 | 3450-3800 | 200 |

| | | | | |
|----------|-----|-----------|-----------|-----|
| C-Band-2 | n77 | 3700-3980 | 3700-3980 | 200 |
|----------|-----|-----------|-----------|-----|

| Interface | |
|--------------------------|---|
| Access Unit RF Interface | QMA Female |
| Optical Connector Type | 8 x 25 GBps SFP+ Interfaces 6 to 8 optical connections to E3-O or N3 2 optical connections to Secondary A3s |
| Transmission Rate | 25 GB/s |
| AU-AC modules | 4 x AU-AC modules per chassis (RF interface with BTS) Full 3GPP Band per Module (up to 200 MHz) |
| Band Support | 12x 3GPP bands over 1 fiber core (using 2 x Secondary A3) |
| Dry contact Alarms | 1x RJ45 (2x in, 2x out) |
| Maintenance Interface | Ethernet RJ45 |
| AU-AC power level (dB) | 0dBm to +15 dBm Input Power Range for each port |

| Electrical | |
|--|----------------------|
| Electromagnetic Compatibility/Interference (EMC/EMI) | 3GPP TS38.113 |
| Maximum Power Consumption | 85W |
| AC Power | 100-240v AC, 50/60Hz |
| DC Power | 48VDC ± 20% |

| Environmental | |
|----------------------------------|---------------------------|
| Mean Time Between Failure (MTBF) | > 220,000 hours |
| Operating Temperature | -10°C to +45°C |
| Storage Temperature | -40°C to +85°C |
| Humidity | 0% to 90% (Noncondensing) |
| Cooling | Active |
| Installation | Wall or 19-in Rack |
| Ingress Protection Rating | IP30 (Indoor) |

| Mechanical | |
|--------------------------------------|--|
| AU (Width / Height / Depth / Weight) | 440mm / 88mm / 329mm / 8.0kg 17.32in / 3.46in / 12.95in / 17.64lb |

E62-E3-O - Expansion Unit

| Interface | |
|------------------------|---|
| Optical Connector Type | 16 x 25 GBps SFP+ Interfaces 14x optical connections to N3RU 1x optical connection to Primary A3 or upper level E3 1x optical connection to lower level E3 |
| Transmission Rate | 25 GB/s |
| Cascading | Up to 5 x E3-O per Optical connection |
| Dry contact Alarms | 1x RJ45 (2x in, 2x out) |
| Maintenance Interface | Ethernet RJ45 |

| Electrical | |
|--|-----------------------|
| Electromagnetic Compatibility/Interference (EMC/EMI) | 3GPP TS38.113 |
| Maximum Power Consumption | 65 W |
| AC Power | 100-240 VAC, 50/60 Hz |
| DC Power | 48VDC ± 20% |

| Environmental | |
|---------------|--|
|---------------|--|

| | |
|----------------------------------|---------------------------|
| Mean Time Between Failure (MTBF) | > 220,000 hours |
| Operating Temperature | -10°C to +45°C |
| Storage Temperature | -40°C to +85°C |
| Humidity | 0% to 90% (Noncondensing) |
| Cooling | Passive |
| Installation | Wall or 19-in Rack |
| Ingress Protection Rating | IP30 (Indoor) |

Mechanical

| | |
|--|---|
| E3-O (Width / Height / Depth / Weight) | 440 mm / 44 mm / 220 mm / 6.0 kg 17.32 in / 1.73 in / 8.66 in / 13.23 lb |
|--|---|

E62-N3RU – Low Power Remote Unit

System

| | |
|---|---------------------------------|
| Maximum RF Bands per Access Unit | 4 |
| Maximum RF Bands per Remote Unit | 8 |
| Maximum RF Bands per System | 12 |
| Maximum Access Units per System | 3 (1 x Primary / 2 x Secondary) |
| Maximum E3s per Primary A3 | 8 |
| Maximum E3s cascaded | 5 |
| Maximum N3s cascaded | 6 |
| Frequency Range (Noncontiguous) | 3700 MHz – 3980 MHz |
| Bandwidth per Channel (Downlink & Uplink) | ≤200 MHz (Contiguous) |
| Digital Bandwidth per Channel (Downlink & Uplink) | NR: 10/20/40/60/80/100 MHz |
| Bandwidth per System (Downlink & Uplink) | ≤ 1200 MHz |
| MIMO | 2x2 4x4 |
| System Delay Adjustment | Up to 50.00 μs |

Forward Path (Downlink)

| | | |
|--------------------------------|--|--------|
| Maximum Composite Output power | f >2.5GHz | 25 dBm |
| | 1.7GHz < f < 2.3GHz | 23 dBm |
| | f < 1GHz | 17 dBm |
| Output Power Accuracy | ±2 dB | |
| Maximum Input Power | +15 dBm | |
| Ripple | 4 dB peak to peak | |
| Error Vector Magnitude | <3.5% @ 256 QAM | |
| Manual Attenuation Control | 30 dB @ 1 dB/step (A3:20 dB, N3RU:10 dB) | |
| System Delay (1A3+1E3+1N3) | 12 μs | |

Reverse Path (Uplink)

| | |
|----------------------------------|---|
| Maximum Output Power per Channel | -15dBm @ f >2.5GHz; -17dBm @ 1.7GHz < f < 2.3GHz; -23dBm @ f < 1GHz |
| Output Power Accuracy | ±2 dB |
| Maximum Input Power | -25dBm |
| Ripple | 4 dB peak to peak |
| Manual Gain Control | 30dB @ 1dB/step (A3:20dB, N3RU:10dB) |
| Noise Figure (1A3+1E3+1N3) | 10dB @ Maximum Gain |
| IIP3 | -10dBm |

Interface

| | |
|-------------------------------|--|
| Antenna Interface (All bands) | QMA Female (External Antenna version) |
| Transmission Connector Type | 2 x 25 Gbps SFP+ Interfaces 1x optical connection to Primary A3, upper level E3 or N3 |

| | |
|-----------------------|---|
| | 1x optical connection to lower level N3 |
| Transmission Rate | 25 GB/s |
| Optical Fiber Length | 10km |
| Cascading | Up to 5 x E3-O per Optical connection |
| Maintenance Interface | Ethernet RJ45 |

Electrical

| | |
|--|-----------------|
| Electromagnetic Compatibility/Interference (EMC/EMI) | 3GPP TS38.113 |
| Maximum Power Consumption | 75 W |
| DC Power | 48VDC \pm 20% |

Environmental

| | |
|----------------------------------|---------------------------|
| Mean Time Between Failure (MTBF) | > 220,000 hours |
| Operating Temperature | -10°C to +45°C |
| Storage Temperature | -40°C to +85°C |
| Humidity | 0% to 90% (Noncondensing) |
| Cooling | Passive |
| Installation | Ceiling or Wall |
| Ingress Protection Rating | IP30 (Indoor) |

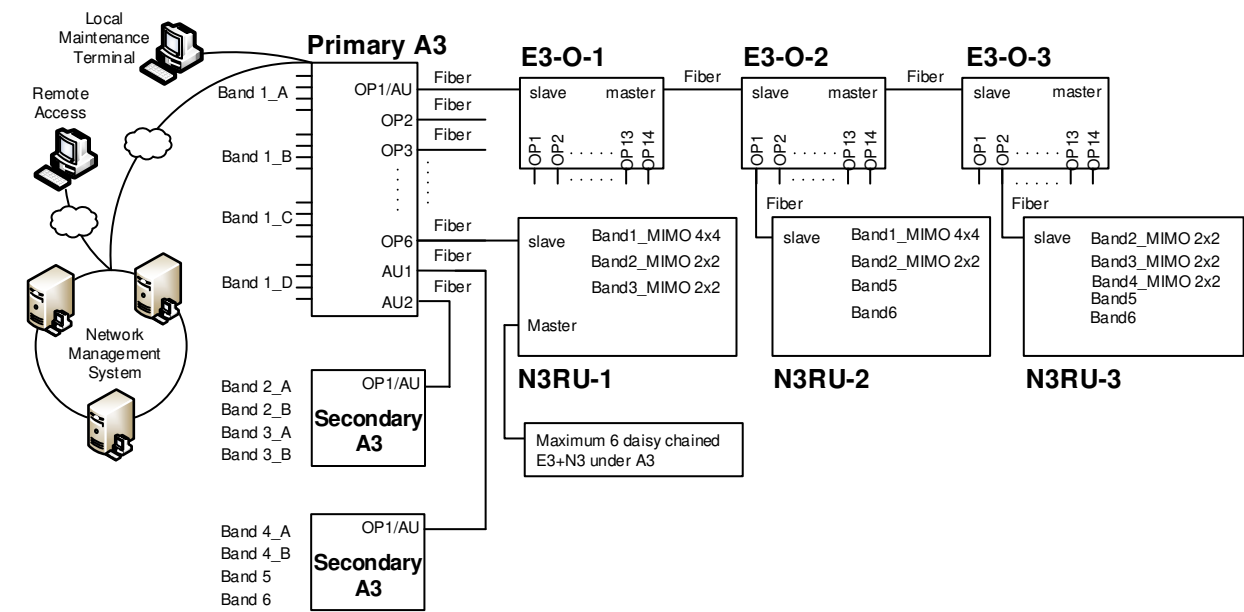
Mechanical

| | |
|--------------------------------------|--|
| N3 (Width / Height / Depth / Weight) | 310 mm / 83 mm / 310 mm / 4.5 kg |
| Integrated Antenna Version | 12.20 in / 3.27 in / 12.20 in / 9.92lb |
| N3 (Width / Height / Depth / Weight) | 310 mm / 83 mm / 310 mm / 4.5 kg |
| External Antenna Version | 12.20 in / 3.27 in / 12.20 in / 9.92lb |

Regulation

| |
|-------------------------|
| FCC, UL62368-1, UL 2043 |
|-------------------------|

System Topology





CORNING

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